

# Forearm fractures

- They arise by mechanism:
  - **direct** – only one bone may be injured;
  - **indirect** – always both bones are injured or Monteggia and Galeazzi.
- Dislocation of the radius according to the amount of fracture:
  - in the upper third - traction of the supinator and biceps;
  - in the lower third - pronator traction.

## Classification

1. Fractures of the proximal radius – head fractures (Mason I–III), neck fractures;
2. Fractures of the proximal ulna – fractures of the olecranon (Colton I–III), fracture of the proc. coronoideus (st. 1–3);
3. fractures of the diaphysis of the radius and ulna:
  - associated fractures of the radius and ulna;;
  - isolated fractures of the radius and ulna;
  - Monteggia fracture;
  - Galeazzi fracture;
4. fractures of the distal radius:
  - extraarticular:
    - no dislocation;
    - with extensional dislocation (Colles fracture);
    - with flexion dislocation (Smith's fracture);
  - partially intra-articular:
    - sagittal dislocation;
    - dorsal dislocation (Barton I);
    - ventral edge avulsion (Barton II);
  - intra-articular comminuted (Melon).



Colles fracture

## Complications

- Pseudoarthrosis;
- compartment syndrome;
- Volkmann's ischemic contracture;
- synostosis between radius and ulna.

## Treatment

### Conservative

- Possible for non-displaced fractures of both bones (circular cast fixation from mid-arm to metacarpal heads, elbow in 90° flexion, forearm in supination for fractures in the upper half, in pronation in the lower half, for 12–16 weeks).
- For isolated fractures of one forearm, cast fixation for 8 weeks - for non-isolated fractures of the ulna and upper two-thirds of the radius (in supination), fractures of the lower third of the radius indicated for operative treatment.
- For fractures of the distal radius (Colles, Smith), plaster fixation for 6 weeks - from the metacarpal heads below the elbow, with the wrist in ulnar duction and flexion (Colles) or extension (Smith).

### Surgical

- Recommended for isolated fractures (the second, unbroken bone then acts as a spacer and leads to the formation of a subluxation); Galeazzi and Monteggia fractures are also indicated, as are all dislocated and open fractures.
- Autocompression splints and intra-articular fixation with spikes are mainly used, external fixation in open and splinter fractures, splints, K-wires, screws, external fixation in distal forearm fractures.

## Links

### Related articles

- Ulna
- Radius

## Zdroj

- PASTOR, Jan. *Langenbeck's medical web page* [online]. [cit. 2022-17-12]. <<http://langenbeck.webs.com>>.